



PATENT
Atty. Dkt. APPM/8830/FEPM/PCVD/PJS

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Ma, et al.

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Group Art Unit: Unknown

Serial No.: 10/784,904

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Confirmation No.: Unknown

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Examiner: Unknown

Filed: February 23, 2004

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For: Gate Electrode Dopant
Activation Method for
Semiconductor
Manufacturing

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CERTIFICATE OF MAILING

37 CFR 1.8

I hereby certify that this correspondence is being deposited on
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Dear Sir:

INFORMATION DISCLOSURE STATEMENT

The Applicants, and the Attorney who signs below on the basis of the information supplied by the inventor and the information in his file, submit herewith patents, publications, or other information of which they are aware, which may be material to the examination of this application and in respect of which there may be a duty to disclose in accordance with 37 CFR § 1.56.

While the information submitted in this Information Disclosure Statement may be material pursuant to 37 CFR § 1.56, it is not intended to constitute an admission that any patent, publication, or other information referred to therein is prior art for this invention unless specifically designated as such.

In accordance with 37 CFR § 1.97, this Information Disclosure Statement is not to be construed as a representation that a search has been made or that no other possibly material information as defined under 37 CFR § 1.56(a) exists.

The patents and/or publications submitted herewith are set forth on the attached Form PTO-1449.

If the sum of \$180.00 is due under 37 CFR § 1.17(p) pursuant to § 1.97, the Commissioner is hereby authorized to charge this fee, and any other fee necessary to make this submission timely, to the Deposit Account No. 20-0782/APPM/8830/KMT.

Respectfully submitted,



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Attorney for Applicant(s)

Substitute for form 1449A/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT APR 05 2004 <i>(Use as many sheets as necessary)</i>		Application Number	10/784,904
		Filing Date	February 23, 2004
		First Named Inventor	Ma, et al.
		Group Art Unit	Unknown
		Examiner Name	Unknown
		Attorney Docket Number	AMAT/8830/FEP/PCVD/PJS
Sheet	1	of	5
		Submission Date	March 31, 2004

U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code ² (if known)			
A1	US-6645838		11/11/2003	Talwar, et al.	
A2	US-6635588		10/21/2003	Hawryluk, et al.	
A3	US-6559520		05/06/2003	Matsuki, et al.	
A4	US-6544900		04/08/2003	Raaijmakers, et al.	
A5	US-6458718		10/01/2002	Todd	
A6	US-6410463		06/25/2002	Matsuki	
A7	US-6387761		05/14/2002	Shih, et al.	
A8	US-6383956		05/07/2002	Hawryluk, et al.	
A9	US-6383955		05/07/2002	Matsuki, et al.	
A10	US-6358829		03/19/2002	Yoon, et al.	
A11	US-6352945		03/05/2002	Matsuki, et al.	
A12	US-6348420		02/19/2002	Raaijmakers, et al.	
A13	US-6303476		10/16/2001	Hawryluk, et al.	
A14	US-6284686		09/04/2001	Marlor	
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A16	US-6025627		02/15/2000	Forbes, et al.	
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A18	US-5807792		09/15/1998	Ilg, et al.	

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Examiner Initials*	Cite No. ¹	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶
		Country Code ³ -Number ⁴ -Kind Code ⁵ (if known)				
B1	WO 02/097864		12/05/2002	ASM America, Inc.		
B2	WO 02/080244		10/10/2002	ASM America, Inc.		
B3	WO 02/065525		08/22/0002	ASM America, Inc.		
B4	WO 02/065517		08/22/2002	ASM America, Inc.		
B5	WO 02/065516		08/22/2002	ASM America, Inc.		

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Sheet

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Application Number	10/784,904
Filing Date	February 23, 2004
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Group Art Unit	Unknown
Examiner Name	Unknown
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		Number-Kind Code ² (if known)			
A19	US-5796116		08/18/1998	Nakata, et al.	
A20	US-5693139		12/02/1997	Nishizawa, et al.	
A21	US-5674304		10/07/1997	Fukada, et al.	
A22	US-5527733		06/18/1996	Nishizawa, et al.	
A23	US-5480818		01/02/1996	Matsumoto, et al.	
A24	US-5469806		11/28/1995	Mochizuki, et al.	
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A31	US-20030036268		02/20/2003	Brabant, et al.	
A32	US-20030022528		01/30/2003	Todd	
A33	US-20020197831		12/26/2002	Todd, et al.	
A34	US-20020173130		11/21/2002	Pomerode, et al.	
A35	US-20020173113		11/21/2002	Todd	
A36	US-20020168868		11/14/2002	Todd	

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		Country Code ³ -Number ⁴ -Kind Code ⁵ (if known)				
B6	WO 02/065508		08/22/2002	ASM America, Inc.		
B7	WO 02/064853		08/22/2002	ASM America, Inc.		
B8	WO 01/41544		06/14/2001	ASM America, Inc.		
B9	WO 98/20524		05/14/1998	Pacific Solar Pty. Limited		
B10	JP 63-062313 (Abstract Only)		03/18/1988	Fujitsu, Ltd.		

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Sheet 0

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		Number-Kind Code ² (if known)			
A37		US-20020093042	07/18/2002	Oh, et al.	
A38		US-20020022294	02/21/2002	Hawryluk, et al.	
A39		US-20020019148	02/14/2002	Hawryluk, et al.	
A40		US-20010055672	12/27/2001	Todd	
A41		US-20010046567	11/29/2001	Matsuki, et al.	
A42		US-20010024871	09/27/2001	Yagi	
A43		US-20010020712	09/13/2001	Raaijmakers, et al.	
A44		US-			
A45		US-			
A46		US-			
A47		US-			
A48		US-			
A49		US-			
A50		US-			
A51		US-			
A52		US-			
A53		US-			
A54		US-			

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		Country Code ³ -Number ⁴ -Kind Code ⁵ (if known)				
B11		JP 62-171999 (Abstract Only)	07/28/1987	Nippon Telegr & Teleph Corp.		
B12		JP 58-098917 (Abstract Only)	06/10/1983	Matsushita Denki Sangyo KK		
B13		JP 2001-189312 (Abstract Only)	05/02/2001	Motorola, Inc.		
B14		JP 2001-111000	04/20/2001			
B15		JP 05-102189 (Abstract Only)	04/23/1993	Fujitsu, Ltd.		

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Sheet

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		Number-Kind Code ² (if known)			
A55	US-				
A56	US-				
A57	US-				
A58	US-				
A59	US-				
A60	US-				
A61	US-				
A62	US-				
A63	US-				
A64	US-				
A65	US-				
A66	US-				
A67	US-				
A68	US-				
A69	US-				
A70	US-				
A71	US-				
A72	US-				

A73

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		Country Code ³ -Number ⁴ -Kind Code ⁵ (if known)				
B16	JP 05-047665 (Abstract Only)		02/26/1993	Fujitsu, Ltd.		
B17	JP 03-286522 (Abstract Only)		12/17/1991	NEC Corp.		
B18	JP 02-172895 (Abstract Only)		07/04/1993	NEC Corp		
B19	JP 01-270593 (Abstract Only)		10/27/1989	Fujitsu, Ltd.		
B20	EP 1 150 345		10/31/2001	ASM Japan K.K.		

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Sheet 5

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Attorney Docket Number	AMAT/8830/FEP/PCVD/PJS
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NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T ²
	1	Choi, et al. "Stability of TiB ₂ as a Diffusion Barrier on Silicon," J. Electrochem. Soc., Vol. 138, No. 10, October 1991	
	2	Debusschere, et al. "Importance of determining the polysilicon dopant profile during process development," J. Vac. Sci. Technol. B 14(1), Jan/Feb 1996	
	3	Earles, et al. "Nonmelt Laser Annealing of 5-KeV and 1-KeV Boron-Implanted Silicon," IEEE Transactions on Electron Devices, Vol. 49, No. 7, July 2002	
	4	Jeong, et al. "Growth and Characterization of Aluminum Oxide Al ₂ O ₃ Thin Films by Plasma-assisted Atomic Layer Controlled Deposition," J. Korean Inst. Met. Mater., Vol. 38, No. 10, Oct. 2000	
	5	Jeong, et al. "Plasma-assisted Atomic Layer Growth of High-Quality Aluminum Oxide Thin Films," Jpn. J. Appl. Phys. 1, Regul. Pap. Short Notes, Vol. 40, No. 1, Jan 2001	
	6	Lee, et al. "Cyclic Technique for the Enhancement of Highly Oriented Diamond Film Growth," Thin Solid Films 303 (1997) 264-269	
	7	Paranjpe, et al. "Atomic Layer Deposition of AlO _x for Thin Film Head Gap Applications," J. Electrochem. Soc., Vol. 148, No. 9, Sep. 2001	
	8	Talwar, et al. "Junction sealing unsing lasers for thermal annealing," Solid State Technology, Vol. 46, Issue 7, July 2003	
	9	Yamshita, et al. "Kinetics of Boron Activation by Flash Lamp Annealing," Extend Abstracts of the 2003 International Conference of Solid State Devices and Materials, Tokyo, 2003, pp. 742-743	
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